## CLAIMS

1. A method of treating a subject who has developed or is at risk of developing at least one of hypertension, hypertrophic organ degeneration, Raynaud's phenomena, fibrotic organ degeneration, allergies, autoimmune sensitization, end stage renal disease, obesity, diabetes type 1, osteoporosis, impotence, hair loss, cancer, aging, autism, an autism spectrum symptom, retarding due to aging, comprising:

identifying a subject who has developed or is at risk of developing at least one of hypertension, hypertrophic organ degeneration, Raynaud's phenomena, fibrotic organ degeneration, allergies, autoimmune sensitization, end stage renal disease, obesity, diabetes type 1, osteoporosis, impotence, hair loss, cancer, autism, an autism spectrum symptom; and

positioning ammonia oxidizing bacteria in close proximity to the subject.

2. The method of claim 1, wherein the act of positioning the bacteria comprises positioning a bacteria selected from the group consisting of any of *Nitrosomonas, Nitrosococcus, Nitrosospira, Nitrosocystis, Nitrosolobus, Nitrosovibrio,* and combinations thereof.

3. The method of claim 2, wherein the act of positioning ammonia oxidizing bacteria comprises:

applying ammonia oxidizing bacteria to a surface of the subject in an effective amount to cause the bacteria to metabolize any of ammonia, ammonium salts, or urea on the surface into any of nitric oxide, nitric oxide precursors or combinations thereof.

4. The method of claim 3, wherein the act of applying the bacteria comprises applying the bacteria in a suitable carrier.

5. The method of claim 3, wherein the act of applying the bacteria to a surface comprises applying the bacteria to skin, hair, or a combination thereof.

6. The method of claim 3, wherein the act of applying the bacteria comprises applying a substantially pure bacteria.

7. The method of claim 3, wherein the act of applying the bacteria comprises:
applying the bacteria to an article; and
contacting the article with the surface of the subject.

8. The method of claim 3, wherein the act of applying the bacteria comprises applying the bacteria mixed with an acid.

9. A method of augmenting animal growth comprising:
removing AAOB from the surface of the animal.

10. Use of ammonia oxidizing bacteria in the manufacture of a medicament for providing nitric oxide to a subject, wherein said medicament is suitable for being positioned in close proximity to said subject, substantially as described in the specification, wherein the subject has developed or is at risk of developing at least one of: hypertension, hypertrophic organ degeneration, Raynaud's phenomena, fibrotic organ degeneration, allergies, autoimmune sensitization, end stage renal disease, obesity, diabetes type 1, osteoporosis, impotence, hair loss, cancer, autism, an autism spectrum symptom, and reduced health due to aging.

11. The use of claim 10, wherein said bacteria are selected from the group consisting of any of *Nitrosomonas, Nitrosococcus, Nitrosospira, Nitrosocystis, Nitrosolobus, Nitrosovibrio,* and combinations thereof.

12. The use of claim 11, wherein said medicament is suitable for application to a surface of the subject in an effective amount so as to cause said bacteria to metabolize any of ammonia, ammonium salts, or urea on the surface into any of nitric oxide, nitric oxide precursors or combinations thereof.

13. The use of claim 12, wherein the medicament is suitable for application to skin, hair, or a combination thereof.

14. The use of claim 12, wherein the medicament is suitable for application to an article and wherein the article is suitable for contact with the surface of said subject.